

Ontological Tensions in 16th and 17th Century Chemistry: Between Mechanism and Vitalism

Banchetti-Robino, Marina Paola (2009) Ontological Tensions in 16th and 17th Century Chemistry: Between Mechanism and Vitalism. In [2009] International Society for the Philosophy of Chemistry Annual Meeting (Philadelphia, August 13-15, 2009).

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Abstract

The 16th and 17th centuries marked a period of transition from the vitalistic ontology that had dominated Renaissance natural philosophy to the Early Modern mechanistic paradigm endorsed by, among others, the Cartesians and Newtonians. This paper focuses on how the tensions between vitalism and mechanism played themselves out in the context of 16th and 17th century chemistry and chemical philosophy. The paper argues that, within the fields of chemistry and chemical philosophy, the significant transition that culminated in the 18th century Chemical Revolution was not a transition from vitalism to full-blown mechanism. Rather, chemical philosophy shifted from a vitalistic theory of matter and spirits to a naturalistic, physicalistic, and corpuscularian conception of chemical properties and reactions. Despite being naturalistic, physicalistic, and corpuscularian, however, this theory was not fully mechanistic. Special attention is paid to the contributions made by Paracelsus, Sebastien Basso, Jan Baptista van Helmont, and Robert Boyle to this ontological transition.

Chemical Revolution, alchemy, history of chemistry, chemical philosophy, Paracelsus,

Keywords: Basso, van Helmont, Boyle, vitalism, mechanism, corpuscularian philosophy,

corpuscularianism, history of chemical philosophy, 16th century chemical philosophy, 16th

century chemistry, 17th century chemical philosophy, 17th century chemistry

Subjects: General Issues: History of Philosophy of Science

Specific Sciences: Chemistry

Conferences [2009] International Society for the Philosophy of Chemistry Annual Meeting (Philadelphia,

and Volumes: August 13-15, 2009)

ID Code: 4877

Deposited By: Banchetti-Robino, Marina Paola

Deposited On: 04 September 2009

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